

PATENT
 USSN 08/974,584
 015389-002950US
 018/206p2

CLAIM AMENDMENTS

1 to 118. **CANCELLED**

119. *(Currently amended)* A recombinant or synthetic polynucleotide encoding a protein that comprises an amino acid sequence at least 60% identical to SEQ. ID NO:118, and that comprises each of the following structures:

- a) ~~Trp-R₁-X₂-R₄-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₆-R₃-R₃-Arg-R₄-X₂-Trp (SEQ. ID NOS:16 and 17)~~
- b) a) X₃-Arg-X₂-Pro-Lys-X₃ (SEQ. ID NO:139)
- c) b) X-Arg-X-Ile-X (SEQ. ID NO:143)
- d) c) X₄-Phe-X₃-Asp-X₄-Tyr-Asp-X₂ (SEQ. ID NO:144)
- e) d) Tyr-X₄-Gly-X₂-Gln-Gly-X₃-Ser-X₆ (SEQ. ID NO:146)
- f) e) X₆-Asp-Asp-X-Leu-X₃ (SEQ. ID NO:147) ; and
- g) either: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₆-R₃-R₃-Arg-R₄-X₂-Trp (SEQ. ID NO:16),
or: Trp-R₁-X₇-R₁-R₁-R₂-X-Phe-Phe-Tyr-X-Thr-Glu-X₆-R₃-R₃-Arg-R₄-X₂-Trp (SEQ. ID NO:17);

wherein R₁ is Leu or Ile; R₂ is Gln or Arg; R₃ is Phe or Tyr; R₄ is Lys or His, and X_n represents the number n of consecutive unspecified amino acids;

and wherein the protein has telomerase catalytic activity when complexed with a telomerase RNA component.

- 120. *(Previously presented)* The polynucleotide of claim 119, comprising the structure Trp-Leu-X-Tyr-X₂-h-h-X-h-h-X-p-Phe-Phe-Tyr-X-Thr-Glu-X-p-X₃-p-X₆-Tyr-X-Arg-Lys-X₂-Trp (SEQ. ID NO:116); wherein h is a hydrophobic amino acid selected from Ala, Leu, Ile, Val, Pro, Phe, Trp, and Met; and p is a polar amino acid selected from Gly, Ser, Thr, Tyr, Cys, Asn and Gln.
- 121. *(Currently amended)* The polynucleotide of claim 119, where structure c) g) further comprises Arg-Lys-X₂-Trp-X₂-Leu (SEQ ID NO:477).
- 122. *(Currently amended)* The polynucleotide of claim 119, where structure b) a) comprises h-Arg-h-X-Pro-Lys, wherein h is a hydrophobic amino acid selected from Ala, Leu, Ile, Val, Pro, Phe, Trp, and Met (SEQ ID NO:473).
- 123. *(Currently amended)* The polynucleotide of claim 119, where structure e) b) comprises Arg-X-Ile-Pro-Lys (SEQ ID NO:478).

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124. *(Currently amended)* The polynucleotide of claim 119, where structure ~~a)~~ d) comprises Gly-Ile-Pro-Gln-Gly-Ser (SEQ ID NO:370).
125. *(Currently amended)* The polynucleotide of claim 119, where structure ~~f)~~ e) comprises Leu-Leu-Leu-Arg-Leu-X-Asp-Asp-Phe-Leu (SEQ ID NO:479).
126. *(Currently amended)* The polynucleotide of claim 119, comprising at least 10 consecutive amino acids of ~~SEQ ID NO:123~~ SEQ ID NO:118.
127. *(Withdrawn)* A method for increasing proliferative capacity of a cell of a vertebrate species, comprising expressing the polynucleotide of claim 119 in the cell.